From Out of the Desert Blooms a Jewel of the Southwest: A Commentary on the History of Mayo Clinic in Arizona

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When Drs Will and Charlie Mayo traveled to Arizona for winter respites with their family and eventually purchased adjoining residences in Tucson in the 1930s, little did they know that Mayo Clinic in Arizona would someday arise out of the Sonoran Desert to become the third Mayo Clinic group practice. Indeed, they could not have envisioned how their values and vision for the practice of medicine, so central to the essence of Mayo Clinic, would become an integral part of health care in the southwestern United States. The expansion to Arizona was made possible by the 1983 decision to look at growth areas for additional Mayo Clinic campuses outside Rochester, Minnesota. In 1984, the decision was made to open a second group practice clinic in Jacksonville, Florida, which opened its doors in 1986. Approved in 1985 as a location for the next Mayo Clinic site, Mayo Clinic Scottsdale (as the operation was then known) sprang to life amidst saguaro, cholla, and prickly pear cacti on 180 acres of land in Scottsdale, nestled at the base of the majestic McDowell Mountains. The Scottsdale campus opened its doors in 1987.

"Why Arizona?" some may ask. Chief Administrative Officer Emeritus Robert Fleming tells that there was a decision made to expand not just to one location outside Rochester but to have 2 locations: Jacksonville, Florida, and another to-be-determined site. Criteria for selecting the next location included an area where the population was growing to minimize impact on existing local physicians. According to Robert Smoldt, former Chief Administrative Officer and the head of strategic planning at the time of the Mayo Clinic expansion, a key factor in site selection was the relationship of an area’s population compared with the number of academic medical centers or multispecialty group practices with more than 100 physicians. At the time, Phoenix, Arizona, was the largest metropolitan area in the country with neither of those types of practices. Although other locations were considered, such as California and Texas, in the words of our first chair of the Board of Governors in Arizona, Richard Hill, MD, there were many reasons why Arizona was selected. According to Dr Hill, “We found a dynamic metro area with excellent services... and there was abundant land to build on.”

The future was bright with the prospect of Mayo Clinic bringing its integrated group practice model of care to the southwest region that Drs Will and Charlie so loved. With its arrival, Mayo Clinic in Arizona complemented and expanded the region’s preexisting health care resources, and over the past 27 years, the Clinic has grown in breadth, depth, and reach at an admirable rate, with accomplishments too numerous to account. Selected highlights are presented in the Table.

This commentary serves to highlight the history and contributions of Mayo Clinic in Arizona as we celebrate Mayo Clinic’s 150 years of upholding our core value of “the needs of the patient come first.”

The Early Days
Dr Richard Hill and his wife Barbara were instrumental in opening the Scottsdale campus. From the time of approval of the expansion to Arizona in 1985 to the 1987 opening, the Hills spent 1 week a month travelling to Scottsdale to oversee the project. There were several priorities in opening the Arizona campus, including recruiting staff from Rochester to come to Arizona to carry on the Mayo Clinic culture, recruiting other staff from the Southwest to join the Mayo family, dealing with zoning issues, and forging relationships with the Arizona community leaders and the existing medical community. There were certainly differences in the Southwest compared with Rochester. Rattlesnakes in the stairwells and mountain...
lions and coyotes on the grounds were an obvious difference. Building restrictions in Scottsdale prohibited construction of buildings exceeding a specific height so as not to obstruct the views of the mountains. Paint colors and stone work had to blend into the desert setting (Figure 1). The sign on the external doors that said “Please check your weapons at the front desk” startled some former Minnesotan employees. There were many people in the Scottsdale area who had never heard of Mayo Clinic, which was a big surprise for many coming from Rochester, where Mayo was the largest employer in the city of 65,000; in contrast, the Scottsdale/Phoenix area was home to more than 2 million people. And yes, there was the heat. On the day Mayo Clinic Scottsdale opened in 1987, it was 110 degrees! Yet, soaring temperatures did not cause the staff to abandon the long-held Mayo tradition of professional attire, ie, suits and ties for men, business attire with color-limited hose for women. According to Dr Hill, “We wanted to give the right signal from the start.”

**Patient Care**

Even before the door of Mayo Clinic Scottsdale opened, there were more than 1800 patient appointments scheduled. The clinic opened with 46 eager physicians and 220 dedicated allied health staff. Due to demand, the operation soon expanded to more than 100 physicians in concert with a 146,800-square foot expansion of the Clinic building 3 years ahead of schedule. Today, there are more than 450 physicians and a support staff of more than 5000 taking care of nearly 100,000 patients per year at the Arizona facility.

Not only did the outpatient practice grow, but the inpatient practice thrived as well. Mayo Clinic Scottsdale initially utilized Scottsdale...
Memorial Hospital North, located 7 miles from the initial Scottsdale campus. However, to accommodate growth in both the hospital and clinic practices, Mayo Clinic purchased 210 acres strategically located in northeast Phoenix, near a planned new highway predicted to accelerate growth in and around the hospital campus. Since its opening in 1998, Mayo Clinic Hospital (Figure 2) has grown to 268 licensed beds, including 231 medical/surgical beds, 30 intensive care unit beds, and 21 operating rooms. With the Phoenix expansion, the entire Arizona operation was renamed Mayo Clinic in Arizona in 2004.

The Mayo Clinic Hospital in Phoenix has received considerable local and national recognition. It has been recognized for quality, safety, and service by many organizations that rank and evaluate hospitals. It has been rated among the top hospitals in the U.S. News & World Report rating, capturing the number 1 hospital rating in both Phoenix and the state of Arizona. Likewise, the hospital has been rated a top hospital by the Leapfrog Group for patient safety.

Our two-campus practice (ie, in Scottsdale and Phoenix) continues to grow with an emphasis on cancer, cardiovascular diseases, organ and tissue transplant, and metabolic diseases and obesity. It also provides clinical services to Phoenix Children’s Hospital, Maricopa Integrated Health System, and Phoenix Indian Medical Center. Telemedicine is a large area of growth, with neurology services being provided to outlying underserved areas. The practice has a growing affiliated practice network, working with physicians throughout Arizona and the surrounding states to bring Mayo Clinic expertise to thousands of additional patients. Both the solid organ and bone marrow and stem cell transplant programs in Arizona have steadily grown since their inception. Mayo Clinic in Arizona will be home to a state-of-the-art proton beam facility (funded in part by generous benefactor donations) as part of the cancer center expansion, slated to open in 2016. As part of a $400 million project, including a proton beam facility opening in Rochester in 2015, this cutting-edge technology will enable cancer patients undergoing radiation to receive some of the most advanced care in the world, including the option of pencil-beam scanning techniques. The proton center will be housed in a new state-of-the-art building adjacent to the outpatient specialty building on the hospital campus, which will integrate all cancer-related services under one roof (Figure 3).

Research
The pursuit of medical knowledge has always been an essential part of providing cutting-edge
care at Mayo Clinic, and the Arizona group practice has been home to clinical- and laboratory-based research since its inception. Construction of the Samuel C. Johnson Research Building—named after the recently retired Mayo Clinic Board of Trustee Chair at the time—began in 1991. The 77,000-square-foot building opened on November 9, 1993, with the capacity for 10 laboratories studying diseases such as cancer, asthma, and other chronic illnesses. The facility included a state-of-the-art transgenic mouse facility, available in only a handful of centers nationally. The 110,000-square-foot Mayo Clinic Collaborative Research Building (MCCRB) opened in 2005. This building houses both Mayo Clinic researchers and scientists from the Translational Genomics Research Institute, a nonprofit biomedical research organization. Tom Hornaday, a real estate developer who lost his mother to breast cancer, constructed the MCCRB with the assistance of the city of Scottsdale. Today, the Samuel C. Johnson Research Building and the MCCRB are home to 260 full-time positions in research, including 23 full-time career scientists and clinician investigators. Mayo Clinic in Arizona currently hosts approximately 120 research fellows, associates, trainees, collaborators, and visiting scientists. A human cell therapeutic and regenerative medicine laboratory, being built on the Phoenix campus, is scheduled to open in late 2014.

Education
Medical education has been a vibrant part of the Mayo Clinic in Arizona culture since its early days. The first training program, the Foot and Ankle Surgery Fellowship Program, began in 1988. Today, the facilities to support medical education have grown to include a state-of-the-art center for procedural innovation (opened in 2007), a simulation center (2009), and an education center (2012) that has more than 4000 square feet of space for educational activities. Currently, there are 165 Mayo Clinic trainees based in Arizona. Within our basic science facilities, graduate students, trainees, and students work side by side with senior researchers, using genetic and molecular and cell biology approaches to study health and disease.

Currently, plans are under way to expand Mayo Medical School (currently based exclusively in Rochester) to a school with a national footprint. Expansion of the school operations to include a Mayo Clinic in Arizona component will effectively double the size of Mayo Medical School. These plans include allowing students on both the Arizona and Rochester campuses to be among the first in the nation to have the science of health care delivery integrated into their curriculum, and the added option of obtaining a master’s degree in the science of health care delivery while matriculating. Key science of health care delivery principles will include systems engineering, social and behavioral determinants of health, health care policy, health economics, management science, biomedical informatics, systems engineering, and value principles of health care.

Community Engagement and Collaboration
Mayo Clinic in Arizona has contributed substantially to the economic vitality of the Arizona community. It has been estimated that Mayo Clinic in Arizona generated close to $750 million in direct economic output for the state of Arizona in 2008. This amount generates an additional $700 million in economic output for a total impact of $1.5 billion. Indeed, proposed plans for development of a Phoenix biomedical corridor have generated interest from corporations drawn to the area adjacent to Mayo Clinic in Arizona’s Phoenix campus, in part due to the presence of Mayo Clinic.

The Mayo Clinic in Arizona collaborations have grown with time to include research programs developed in conjunction with Arizona State University, including programs in oncology and diabetes/obesity/metabolism, to name a few. Likewise, Arizona State University is working with Mayo Medical School faculty in both Rochester and Arizona to enhance our medical school curriculum, in order to better prepare our students to meet the current and future challenges in the health care system. Research collaborations with Translational Genomics Research Institute date back to 2003 and continue to this day. Collaborations with Banner Sun Health Research Institute in Alzheimer’s disease research have led to advances in the field. These are but a few of the exciting collaborations that have been forged at Mayo Clinic in Arizona.

Conclusion
In the words of our founding Chair of the Board of Governors Dr Richard Hill, “Failure
was not an option” for Mayo Clinic in Arizona. Indeed, all of the dedicated staff members who have been a part of the tremendous success in the Southwest have fervently clung to this sentiment. Putting the needs of the patient first while delivering excellence in patient care, research, and education have made Mayo Clinic in Arizona a successful enterprise by all accounts. We members of the staff, as well as our patients, are forever indebted to the leadership of Mayo Clinic for establishing Mayo Clinic in Arizona. Indeed, failure was not an option, and therefore success has been the result!

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REFERENCES